

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A thin film semiconductor device, comprising:

a substrate;

an underlevel protection layer formed over the substrate and including a ~~plurality of films, at least one of which includes a silicon oxide~~ composite layers of silicon nitride and silicon oxide; and

a crystallized semiconductor layer in contact with the underlevel protection layer ~~film including the silicon oxide~~, wherein the crystallized semiconductor layer forms an active layer of a transistor,

an effective doping concentration of the crystallized semiconductor layer figuring $1 \times 10^{18} \text{ cm}^{-3}$ or less and the crystallized semiconductor layer having the thickness of 9 nm to 135 nm, which prevents the spread of depletion layers from being constrained at the interface between the crystallized semiconductor layer and the underlevel protection layer,

concentration of trapping states and crystal defects in the crystallized semiconductor layer, ~~and~~ being additive to concentrations of doping ions therein in defining the effective doping concentration.

2. (Currently Amended) A thin film semiconductor device, comprising:

a substrate;

an underlevel protection layer including ~~an insulating material~~ composite layers of silicon nitride and silicon oxide, the underlevel protection layer being formed on at least a portion of the substrate; and

a field effect transistor having:

a semiconductor film on the underlevel protection layer;

a gate insulator layer formed on the semiconductor film;
a gate electrode formed on the gate insulator layer; and
an electrically insulating interlevel insulator layer formed over the gate electrode and between interconnects of said field effect transistor, the underlevel protection layer, the gate insulator layer, and the interlevel insulator layer comprising a silicon oxide film and having a combined thickness of about 2 μm or less,

an effective doping concentration of the semiconductor film figuring $1 \times 10^{18} \text{ cm}^{-3}$ or less and the semiconductor film having the thickness of 9 nm to 135 nm, which prevents the spread of depletion layers from being constrained at the interface between the semiconductor film and the underlevel protection layer,

concentration of trapping states and crystal defects in the semiconductor film, ~~and~~ being additive to concentrations of doping ions therein in defining the effective doping concentration.

3. (New) A thin film semiconductor device according to claim 1, wherein the thin film semiconductor fabricates thin film transistor, a channel region of which has the effective doping concentration of $1 \times 10^{18} \text{ cm}^{-3}$.

4. (New) A thin film semiconductor device according to claim 2, wherein the thin film semiconductor fabricates a thin film transistor, a channel region of which has the effective doping concentration of $1 \times 10^{18} \text{ cm}^{-3}$.